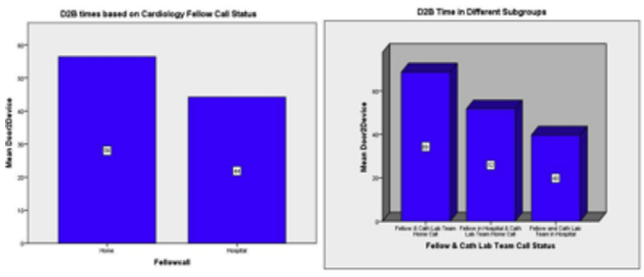
TCT-31

Impact of Hospital vs. Home call for Fellows and Cath Lab Team on Door to Balloon Times

Luke Kohan[1], Vijaiganesh Nagarajan[1], Nancy Fauber[1], Ellen C. Keeley[1]
[1]University of Virginia, Charlottesville, VA

Background: For patients presenting with ST segment elevation myocardial infarction (STEMI), door-to-balloon (or first device) time (D2B) is effected by multiple patient and system-based factors. We hypothesized that fellow and/or catheterization (cath) team in-hospital call would result in decreased D2B time.
Methods: We collected data from our hospital's STEMI database and the electronic medical record. Patients were divided into two groups based on whether the fellow was taking home or in-hospital call. A subgroup analysis included whether the cath lab team was in-hospital or at home. The mean difference in D2B between the groups was calculated using independent T test and one-way ANOVA test.
Results: From June 1, 2009 to June 30, 2013, a total of 313 patients presented with STEMI and underwent emergency coronary angiography: 186 presented when the fellow was taking home call, and 127 presented while the fellow was taking in-hospital call. Mean D2B was significantly lower (44 min vs. 56 min, $p < 0.01$) when the fellow was taking in-hospital call (Figure 1). In a subgroup analysis, D2B times were highest when the fellow and cath team were home, and lowest when both the fellow and the cath lab team were in-hospital (69 min vs. 52 min vs. 40 min) (Figure 2).
Conclusions: D2B times may be improved with a 24 hour in-hospital call team. Whether this translates into better clinical outcomes needs to be addressed.



TCT-32

Lack of mortality benefit of Renin-Angiotensin-Aldosterone system inhibitors in patients without left ventricular dysfunction following primary percutaneous intervention for ST segment elevation myocardial infarction

Akhil Parashar[1], Shikhar Agarwal[1], Aatish Garg[1], Amar Krishnaswamy[1], Kanhaiya L. Poddar[1], Stephen Ellis[2], E. Murat Tuzcu[3], Samir Kapadia[1]
[1]Cleveland Clinic, Cleveland, OH, [2]Cleveland Clinic, Cleveland, United States, [3]Cleveland Clinic Foundation, Cleveland, United States

Background: There is a paucity of evidence on the impact of angiotensin converting enzyme inhibitors (ACEi) and angiotensin receptor blockers (ARB) on long-term outcomes in patients with ejection fraction (EF) >40% after primary percutaneous coronary intervention (pPCI) for ST-segment elevation myocardial infarction (STEMI).We compared long-term all-cause mortality between patients with LVEF > 40% discharged on ACEi/ARB with patients who were discharged on neither of these agents.
Methods: Patients presenting with STEMI to our catheterization laboratory between 2003 and 2011 were included. Patients were excluded if they had left ventricular ejection fraction (LVEF) < 40% or chronic kidney disease or hypotension. Long-term mortality and discharge medications were determined using the Social Security Death Index and electronic medical record review, respectively. Unadjusted and adjusted survival analyses were performed using Kaplan-Meir and Cox proportional hazards modeling respectively with all-cause mortality as primary outcome.
Results: A total of 988 patients were included. The median follow up duration was 4.6 years. Kaplan-Meier analysis showed no significant difference in long-term mortality in patients discharged on ACEi/ARB compared to those who were not discharged on these medications. In addition, multivariable Cox proportional hazard modeling (figure) failed to demonstrate any beneficial effect of ACEi/ARB similar to Kaplan-Meir analysis [HR (95%CI): 0.88 (0.57-1.36)].

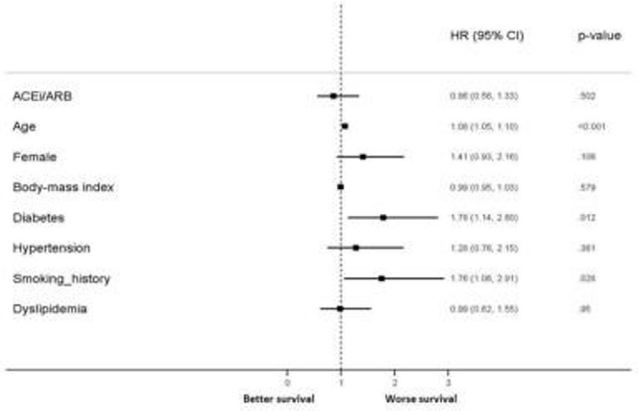


Figure : Cox-proportional hazards survival analysis (adjusted for cardiac risk factors) for all-cause mortality in the study population

Conclusions: We found no significant benefit in long-term mortality with the use of ACEi/ARB in patients with LVEF>40% after pPCI for STEMI.

TCT-33

Large Versus Standard Thromboaspiration Device Comparison in Patients Undergoing Primary Percutaneous Coronary Intervention

Fernando Rivero-Crespo[1], Jorge-Andrés Restrepo[2], Javier Cuesta[3], Teresa Bastante-Valiente[4], Amparo Benedicto[4], Guillermo Diego-Nieto[4], Fernando Alfonso[2]
[1]Hospìtal Universitario de la Princesa, Madrid, Spain, [2]Hospital Universitario de la Princesa, Madrid, Spain, [3]Hospital Universitario de la Princesa, Madrid, MS, [4]Hospital Universitario de la Princesa, Madrid, España

Background: Thrombus aspiration (TA) during primary PCI has demonstrated to be of value in reducing infarct size. In "in vitro" studies larger caliber devices have demonstrated a better aspiration power. Whether this difference may translate into a net clinical benefit in this setting remains unsettled. We sought to compare the efficacy of 7F vs the 6F TA devices (Export, Medtronic Inc.) in patients undergoing primary PCI.
Methods: Prospective observational study with consecutive inclusion of patients presenting with STEMI referred to our institution for primary PCI. After crossing the lesion with a guidewire, an attempt to TA was performed in every patient. The selection of a 6F or 7F TA device was left at the operator's discretion. The primary study endpoint was the occurrence of TA success, defined as an angiographic improvement in TIMI flow on the infarct-related artery of at least 1 TIMI grade.
Results: A total of 403 consecutive STEMI patients, 240 treated with the 7F (77%) and 70 (23 %) with the 6F device were included. Clinical and demographic characteristics of the study population are shown in Table 1. Successful access to the lesion with the TA device was achieved in a 87% vs 94% of patients in 7F and 6F groups respectively (p=NS). TA success was achieved in a significantly higher percentage of patients in the 7F-device group (83%) as compared with the 6F-device group (71 %), (OR: 2.03 , 95% CI 1.19-3.77; $p = 0.03$).The percentage of patients with a final TIMI 3 flow was similar in both groups, with 93.3% and 95.7 % for the 7F and 6F devices respectively ($p = 0.30$).ST-segment elevation resolution 60 min after the intervention was also similar in both groups (68% vs 62 % in the 7F and 6F groups respectively; $p = 0.34$). There was no acute coronary complication associated with the use of TA in any group.At 12 months of clinical follow-up the occurrence of all cause mortality (5% vs 8%, $p = 0.36$) was similar in both groups.
Conclusions: In patients with STEMI undergoing primary PCI the use of a 7F-TA device appears to be associated with a higher TA success rate as compared with the use of a 6F device. However, both devices are associated with similar early and late clinical outcomes.

TCT-34

Long-term mortality of patients with ST-segment elevation versus non-ST-segment elevation myocardial infarction in the drug-eluting stent era: 5-year results of a large real-world registry

Sungmin Lim[1], Ik Jun Choi[2], Eun Ho Choo[3], Byung-Hee Hwang[4], Hee-Yeol Kim[5], Kiyuk Chang[6], Myung Ho Jeong[7], Ki-Bae Seung[6]
[1]The Catholic University of Korea, Bucheon St. Mary's Hospital, Bucheon, Korea, Republic of, [2]The Catholic University of Korea, Incheon St. Mary's Hospital, Incheon, Korea, Republic of, [3]The Catholic University of Korea, Uijeongbu St Mary's Hospital, Uijeongbu, Korea, Republic of, [4]The Catholic University of Korea, St. Paul's Hospital, Seoul, Korea, Republic of, [5]Division of Cardiology, The Catholic University of Korea, Bucheon, Korea, Republic of, [6]The Catholic University of Korea, Seoul St. Mary's Hospital, Seoul, Korea, Republic of, [7]Chonnam National University, Kwang Ju, Korea, Republic of

Background: Difference in long-term mortality between ST-segment elevation myocardial infarction (STEMI) and non-ST-segment elevation myocardial infarction